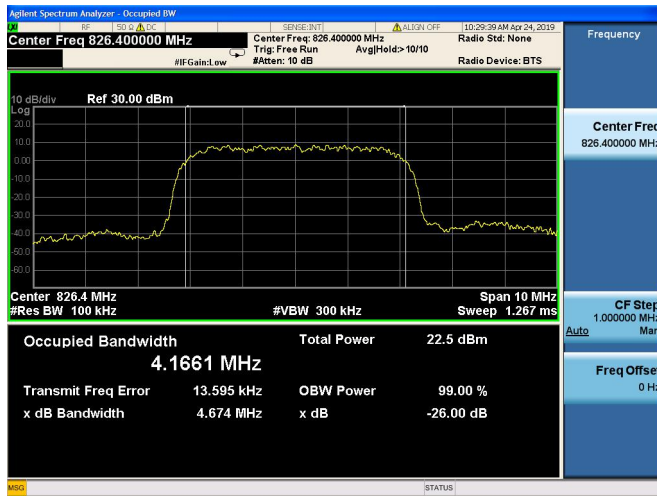
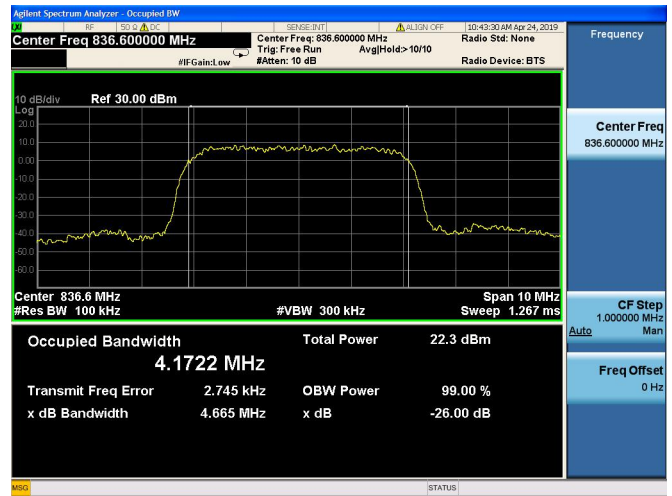
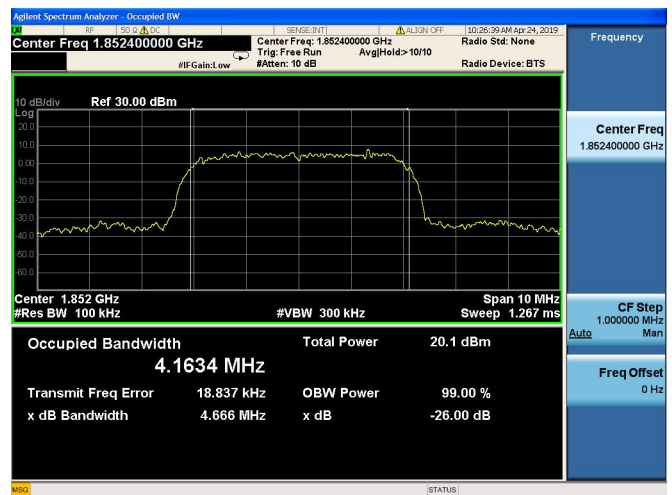
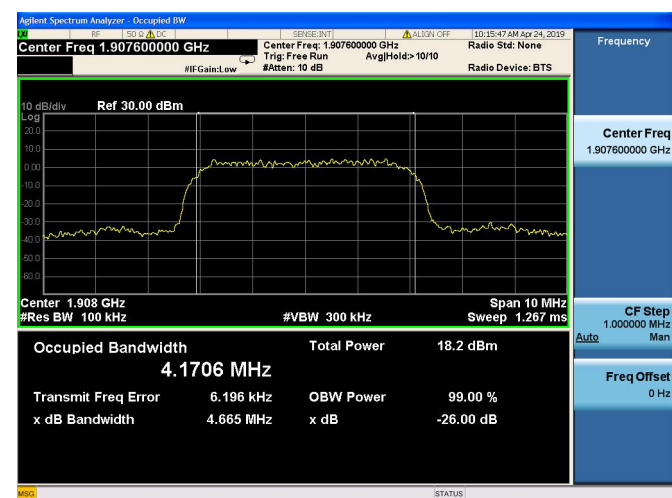


**WCDMA Band VCH4132 826.4MHz****WCDMA Band VCH4182 836.4MHz****WCDMA Band VCH4233 846.6MHz****WCDMA Band II CH9262 1852.4MHz****WCDMA Band II CH9400 1880.0MHz****WCDMA Band II CH9538 1907.6MHz**



2.4. Frequency Stability

2.4.1. Requirement

According to FCC section 22.355, 24.235 and 27.54 the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

- (a) The temperature is varied from -30°C to +50°C at intervals of not more than 10°C.
- (b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

2.4.2. Test Description

Test Setup:

The EUT, which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS via a Common Antenna.

**2.4.3. Test Result****A. Test Verdict:**

GPRS 850MHz, Channel 190, Frequency 836.6MHz Limit = ± 2.5 ppm					
Voltage(%)	Power(V DC)	Temp($^{\circ}$ C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	12	+20(Ref)	24	0.029	PASS
100		-30	-44	-0.053	
100		-20	-24	-0.029	
100		-10	-87	-0.104	
100		0	-47	-0.056	
100		+10	67	0.080	
100		+20	75	0.090	
100		+30	76	0.091	
100		+40	23	0.027	
100		+50	53	0.063	
115	13.8	+20	-64	-0.077	PASS
85	10.2	+20	-27	-0.032	

GPRS 1900MHz, Channel 661, Frequency 1880.0MHz Limit =Within Authorized Band					
Voltage(%)	Power(V DC)	Temp($^{\circ}$ C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	12	+20(Ref)	25	0.013	PASS
100		-30	36	0.019	
100		-20	-23	-0.012	
100		-10	34	0.018	
100		0	-19	-0.010	
100		+10	-48	-0.026	
100		+20	26	0.014	
100		+30	78	0.041	
100		+40	97	0.052	
100		+50	42	0.022	
115	13.8	+20	-65	-0.035	PASS
85	10.2	+20	53	0.028	



EDGE 850MHz, Channel 190, Frequency 836.6MHz					
Limit = ± 2.5 ppm					
Voltage(%)	Power(V DC)	Temp($^{\circ}$ C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	12	+20(Ref)	45	0.054	PASS
100		-30	-45	-0.054	
100		-20	-37	-0.044	
100		-10	-26	-0.031	
100		0	-17	-0.020	
100		+10	25	0.030	
100		+20	43	0.051	
100		+30	77	0.092	
100		+40	24	0.029	
100		+50	63	0.075	
115	13.8	+20	-58	-0.069	
85	10.2	+20	-25	-0.030	

EDGE 1900MHz, Channel 661, Frequency 1880.0MHz					
Limit =Within Authorized Band					
Voltage(%)	Power(V DC)	Temp($^{\circ}$ C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	12	+20(Ref)	25	0.013	PASS
100		-30	36	0.019	
100		-20	-36	-0.019	
100		-10	21	0.011	
100		0	-65	-0.035	
100		+10	-55	-0.029	
100		+20	21	0.011	
100		+30	57	0.030	
100		+40	24	0.013	
100		+50	26	0.014	
115	13.8	+20	-73	-0.039	
85	10.2	+20	78	0.041	



WCDMA Band V, Channel 4182, Frequency 836.4MHz					
Limit = ± 2.5 ppm					
Voltage(%)	Power(V DC)	Temp($^{\circ}$ C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	12	+20(Ref)	35	0.042	PASS
100		-30	-33	-0.040	
100		-20	-43	-0.051	
100		-10	-35	-0.042	
100		0	-75	-0.090	
100		+10	36	0.043	
100		+20	47	0.056	
100		+30	78	0.093	
100		+40	24	0.029	
100		+50	73	0.087	
115	13.8	+20	-63	-0.075	
85	10.2	+20	-44	-0.053	

WCDMA Band II, Channel 9400, Frequency 1880.0MHz					
Limit =Within Authorized Band					
Voltage(%)	Power(V DC)	Temp($^{\circ}$ C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
100	12	+20(Ref)	67	0.080	PASS
100		-30	-52	-0.062	
100		-20	-64	-0.077	
100		-10	-28	-0.034	
100		0	-57	-0.068	
100		+10	57	0.068	
100		+20	25	0.030	
100		+30	56	0.067	
100		+40	24	0.029	
100		+50	65	0.078	
115	13.8	+20	-65	-0.078	
85	10.2	+20	-22	-0.026	

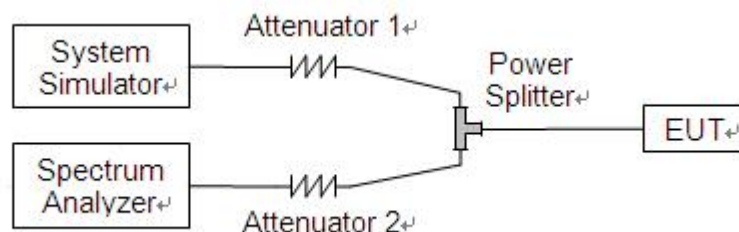
2.5. Conducted Out of Band Emissions

2.5.1. Requirement

According to FCC section 22.917(a), 24.238(a) and 27.53(h) the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43+10\cdot\log(P)$ dB. This calculated to be -13dBm.

2.5.2. Test Description

Test Setup:



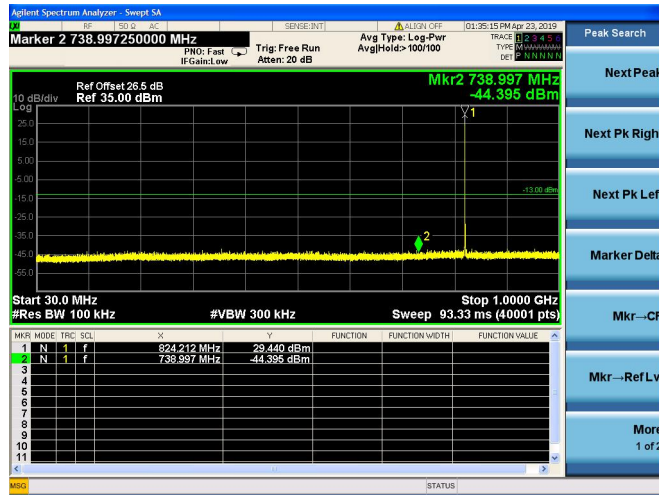
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power i.e. Power Control Level (PCL) = 5 and Power Class = 4. A call is established between the EUT and the SS.

2.5.3. Test Result

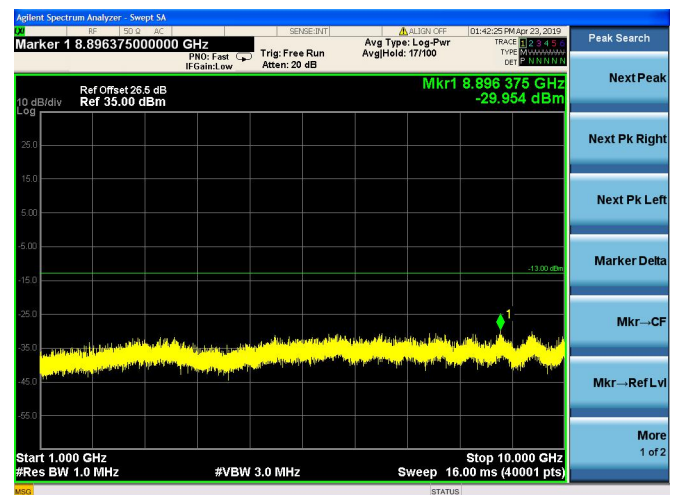
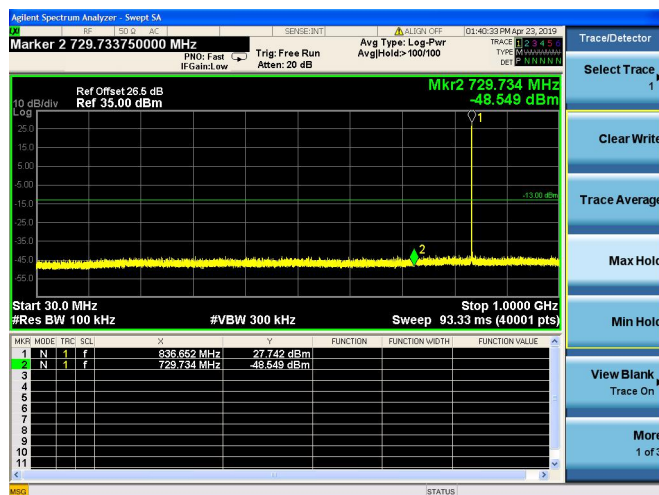
The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.



GPRS 850MHz CH128 824.2MHz



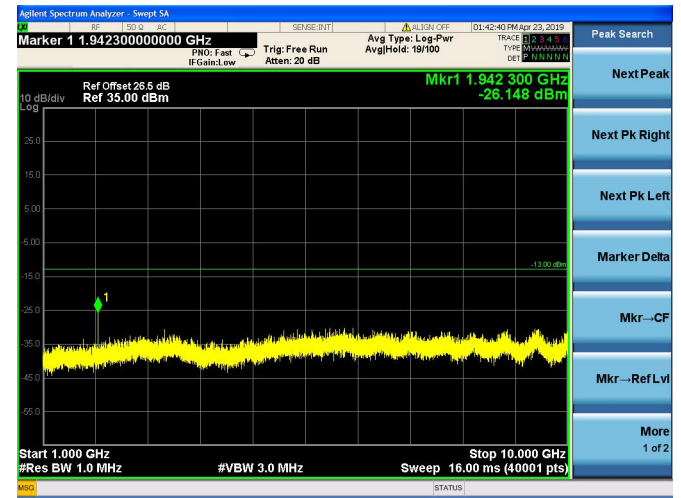
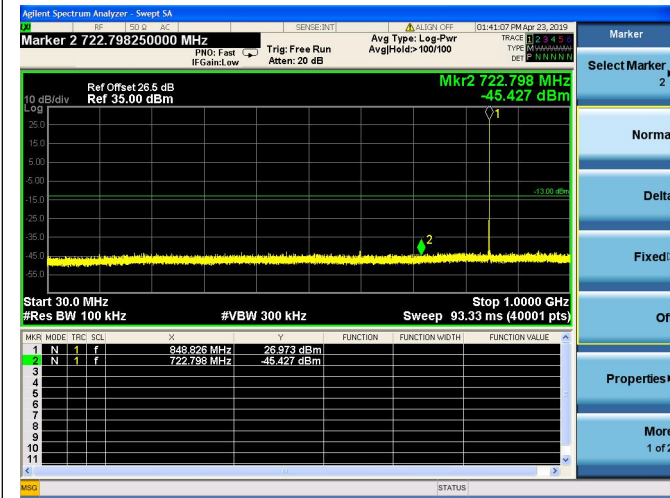
GPRS 850MHz CH190 836.6MHz



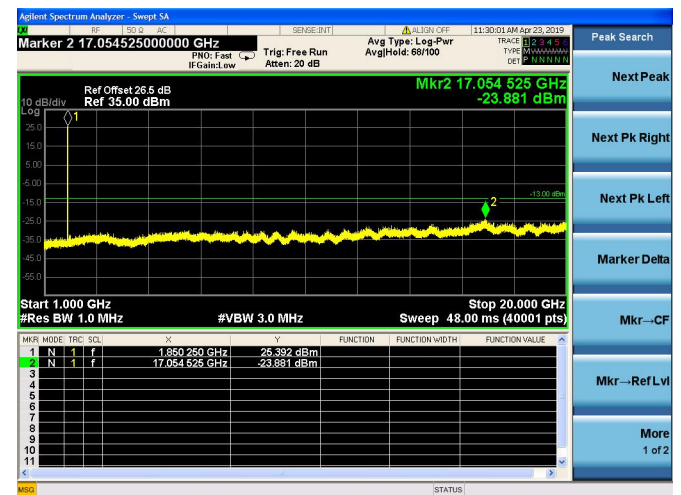
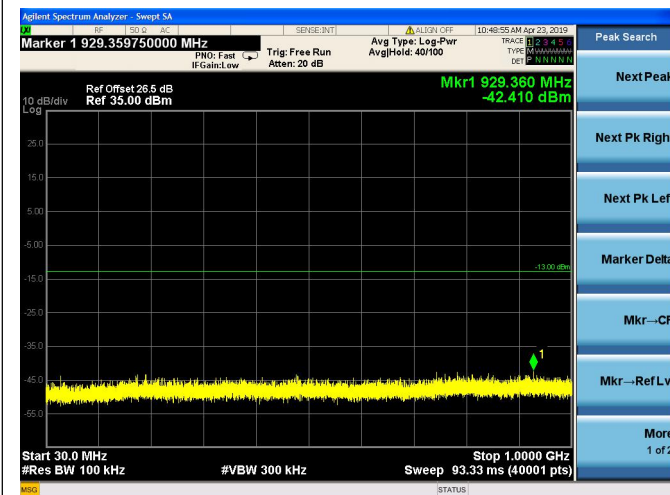
GPRS 850MHz CH251 848.8MHz



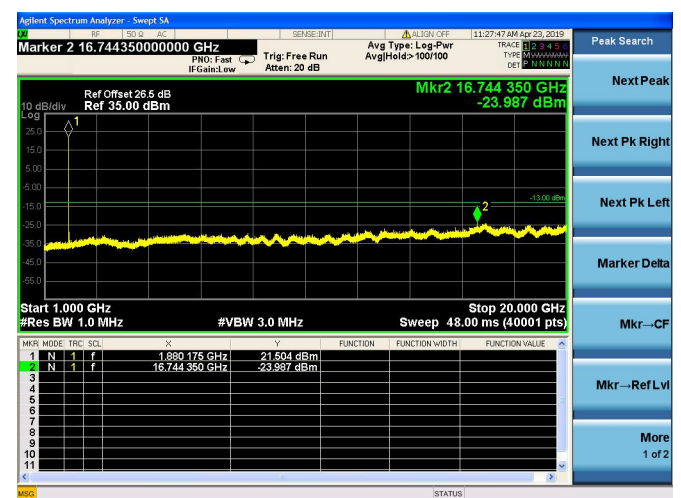
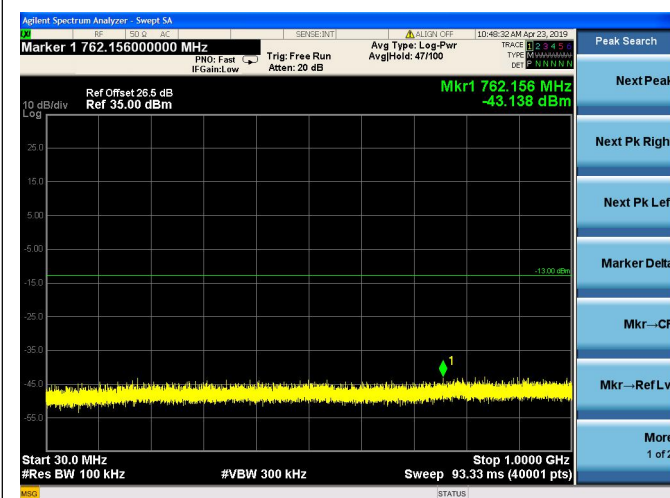
GPRS 850MHz CH128 824.2MHz



GPRS 1900MHz CH521 1850.2MHz



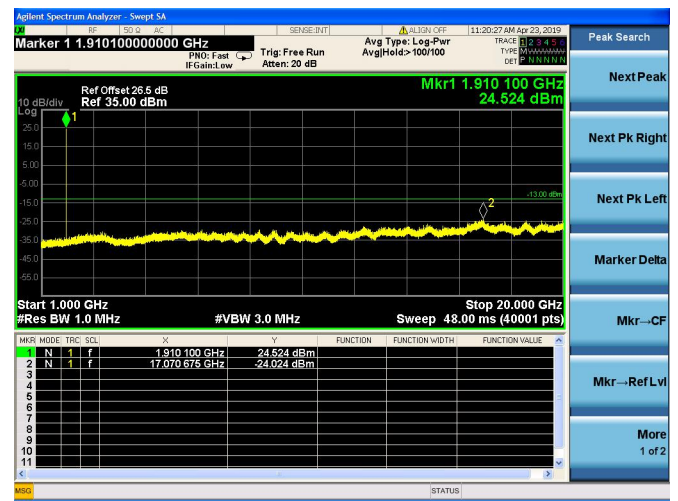
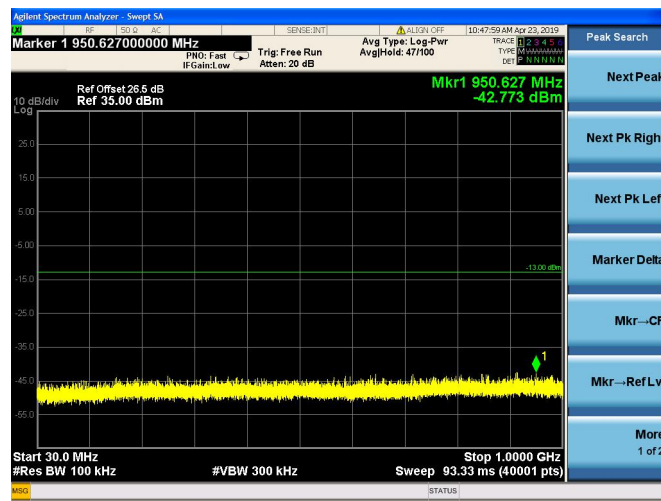
GPRS 1900MHz CH661 1880.0MHz



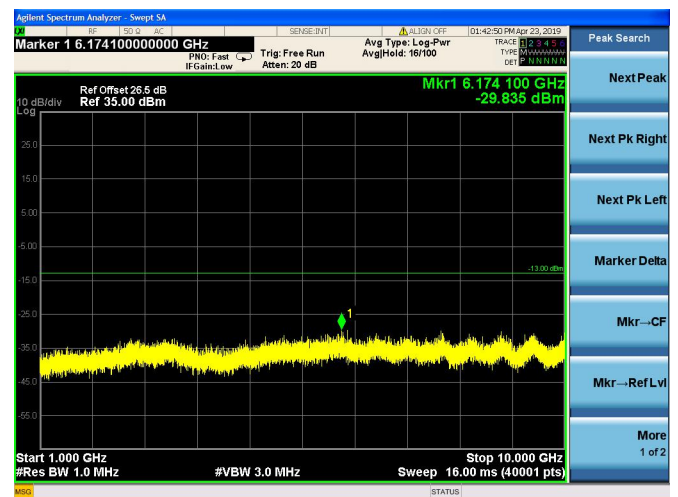
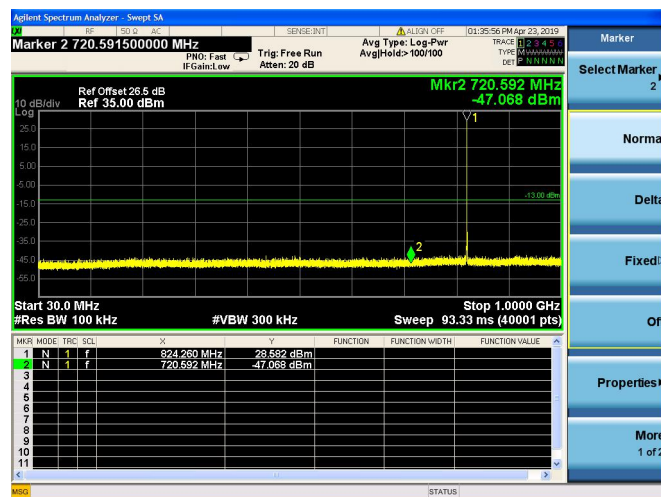


REPORT No.: SZ19040220W01

GPRS 850MHz CH128 824.2MHz
GPRS 1900MHz CH810 1909.8MHz



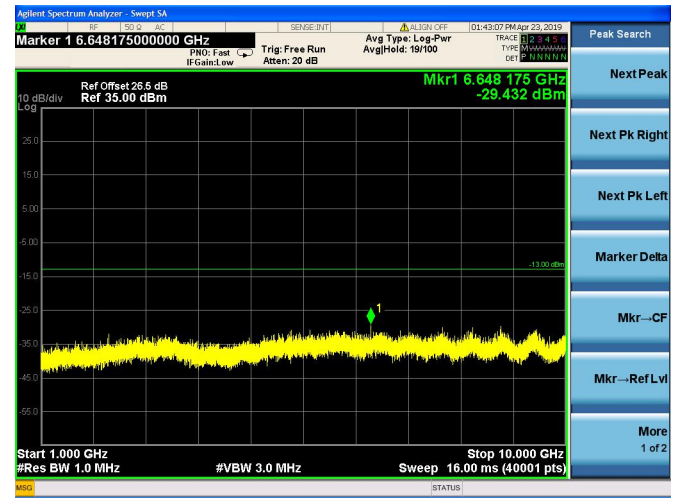
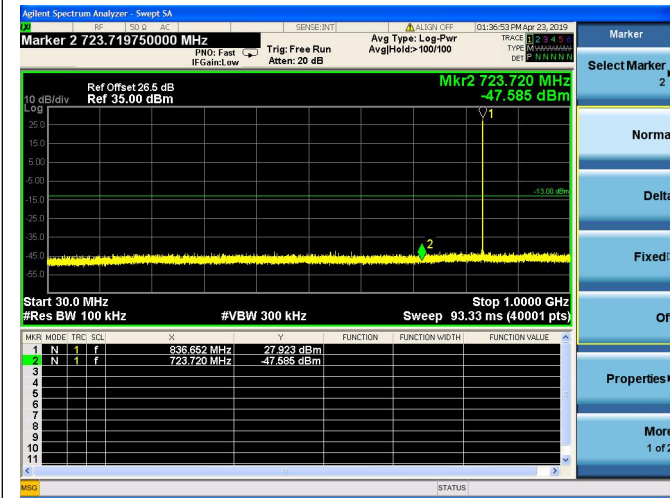
EDGE 850MHz CH128 824.2MHz



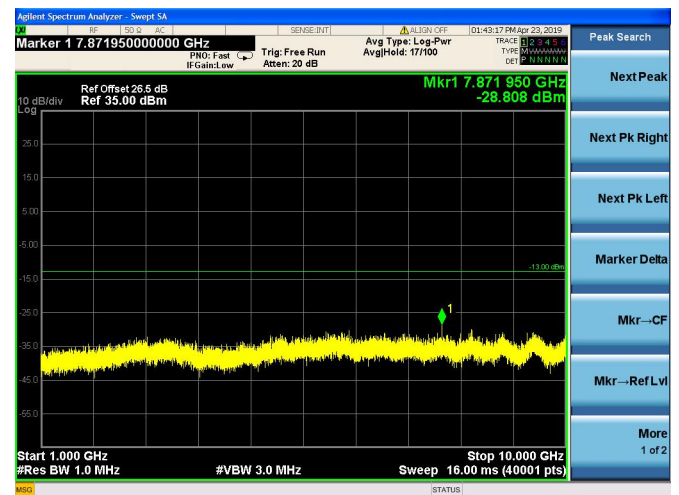
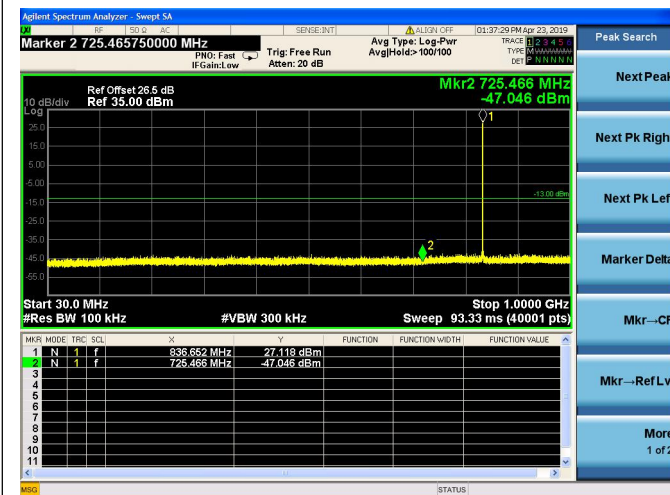
EDGE 850MHz CH190 836.6MHz



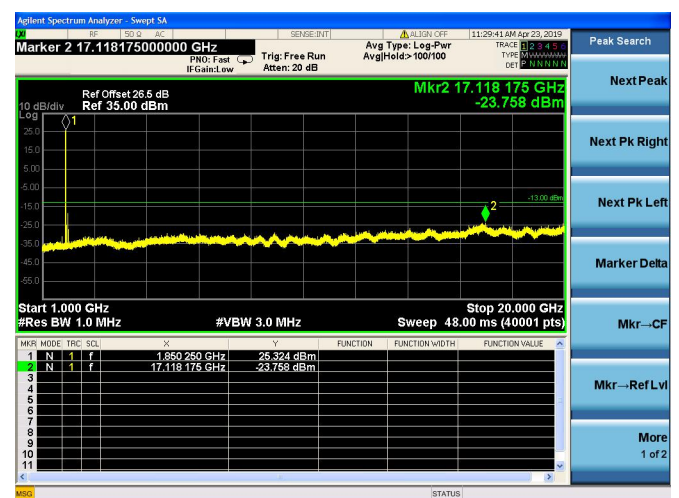
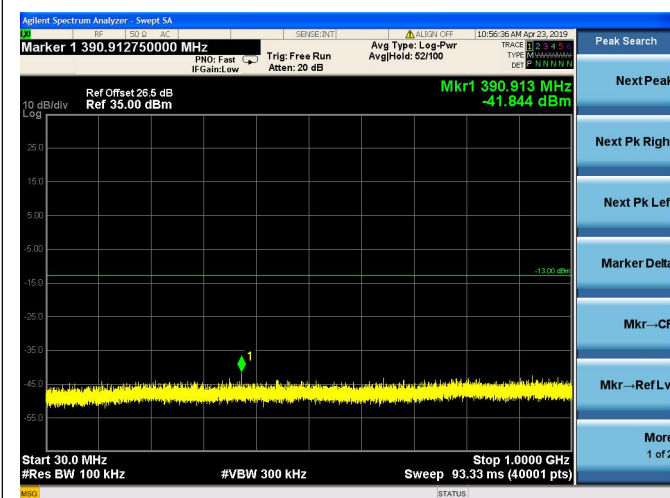
GPRS 850MHz CH128 824.2MHz



EDGE 850MHz CH251 848.8MHz



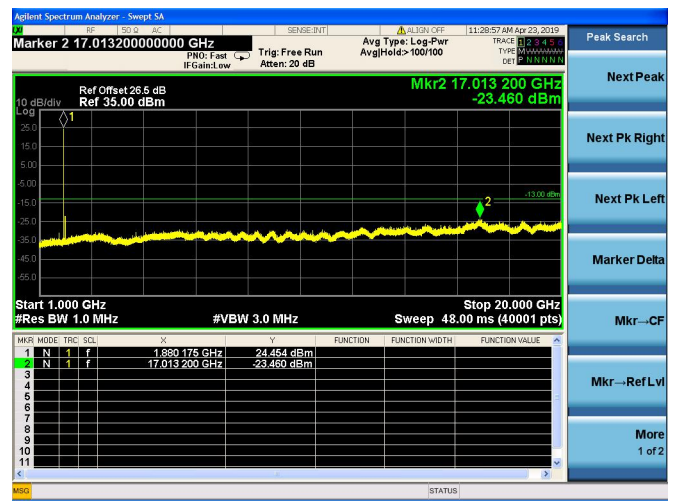
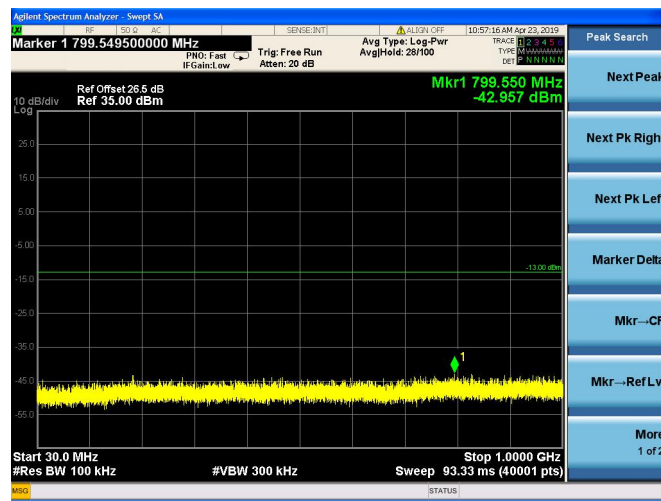
EDGE 1900MHz CH521 1850.2MHz



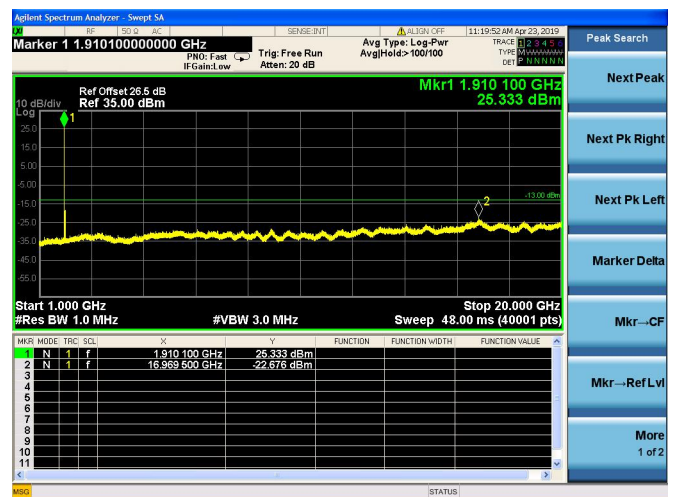
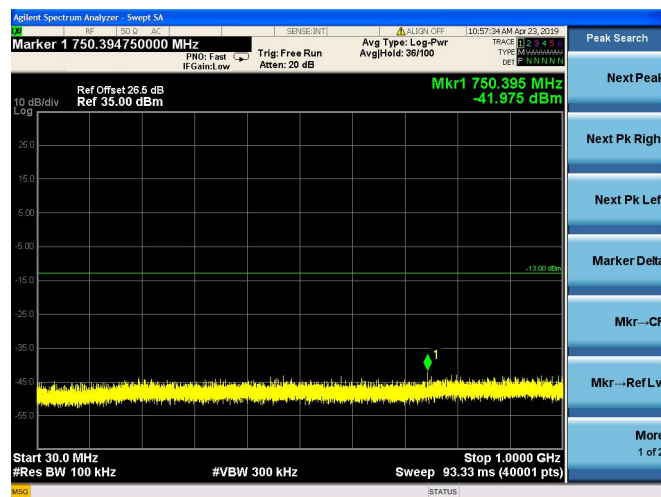


REPORT No.: SZ19040220W01

GPRS 850MHz CH128 824.2MHz
EDGE 1900MHz CH661 1880.0MHz



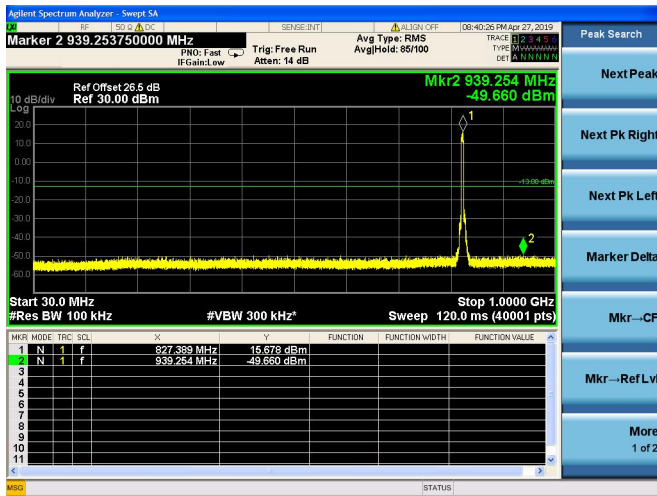
EDGE 1900MHz CH810 1909.8MHz



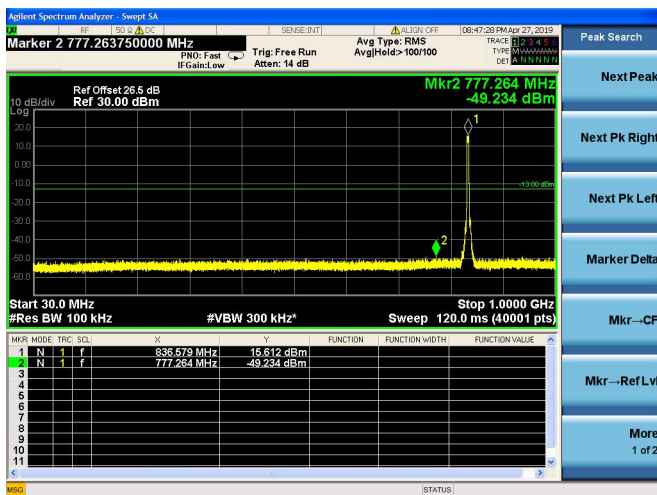
WCDMA Band V CH4132 826.4MHz



GPRS 850MHz CH128 824.2MHz



WCDMA Band V CH4182 836.4MHz



WCDMA Band V CH4233 846.6MHz

